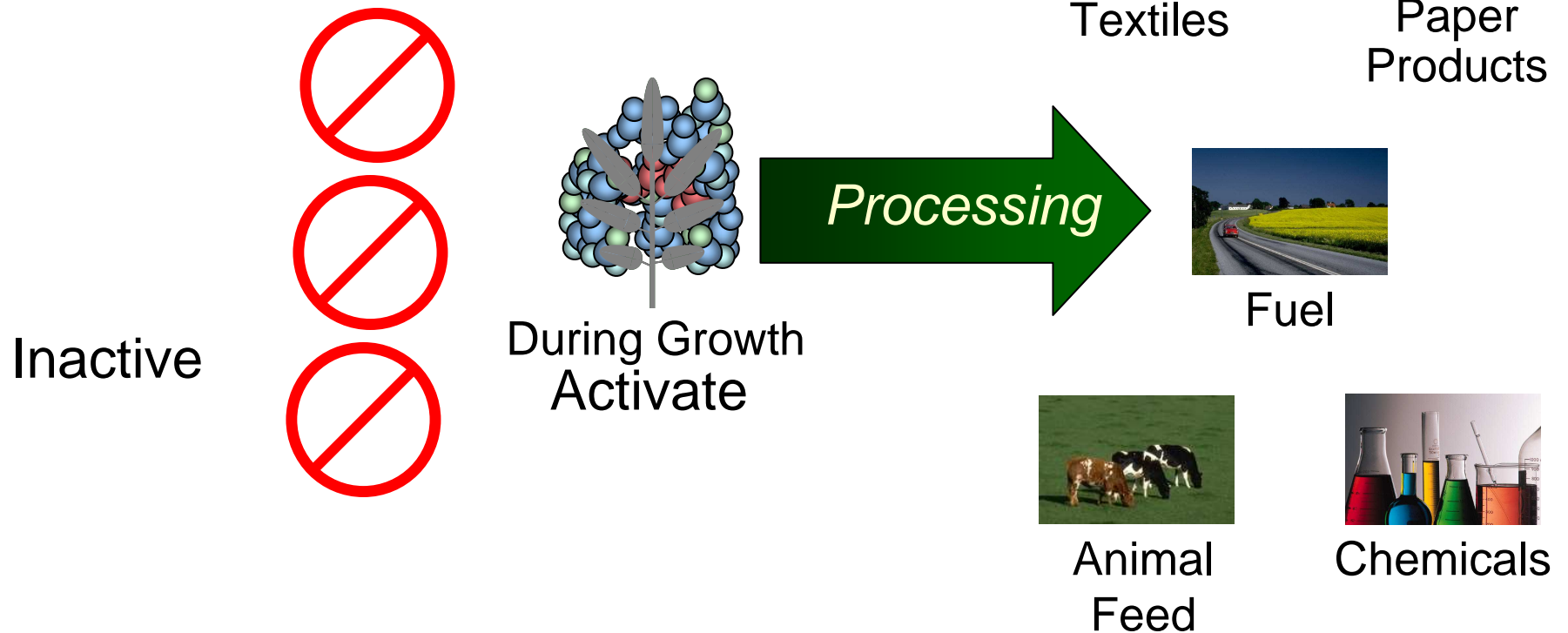




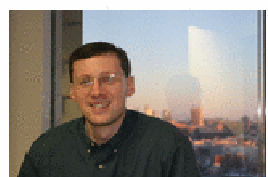
*Leading Sustainable Energy  
Production from Agricultural Biomass*

Company Overview  
Cambridge, MA

# Agrivida Product Technology



# Agrivida's Team

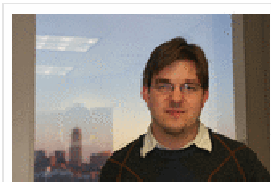


**Michael Raab, Ph.D.**

molecular biology background;  
Merck Research Laboratories, MIT

**Michael Lanahan, Ph.D.**

Syngenta Business Development, Monsanto;  
Enzymes, Traits, Grain Processing



**Jeremy Johnson, Ph.D.**

process optimization;  
National Renewable Energy Lab, MIT

**Karl Ruping, Esq**

15+ years in business development;  
incTank, MIT



**Sairam Rudrabhatla, Ph.D.**

plant transformation & regeneration;  
Aventis Crop Science, 20 years of professional experience

**Humberto de la Vega, Ph.D.**

plant molecular biology background &  
25+ years of professional experience



# Advisory Board

- **Dr. Fred Ausubel**, Harvard, NAS, Molecular biology & plant physiology
- **Dr. Elizabeth Hood**, ASU, Plant industrial enzyme production
- **Dr. Ken Keegstra**, MSU & DOE, Plant cell wall biology
- **Dr. Ray Goldberg**, Harvard, Agribusiness
- **Mr. Scott Pearce**, CEO BioFuel Energy, Ethanol production
- **Dr. Jeff Tester**, MIT, Renewable energy
- **Dr. Michael Ladisch**, Purdue, NAE, Ethanol production & bioprocessing



# Ethanol Market



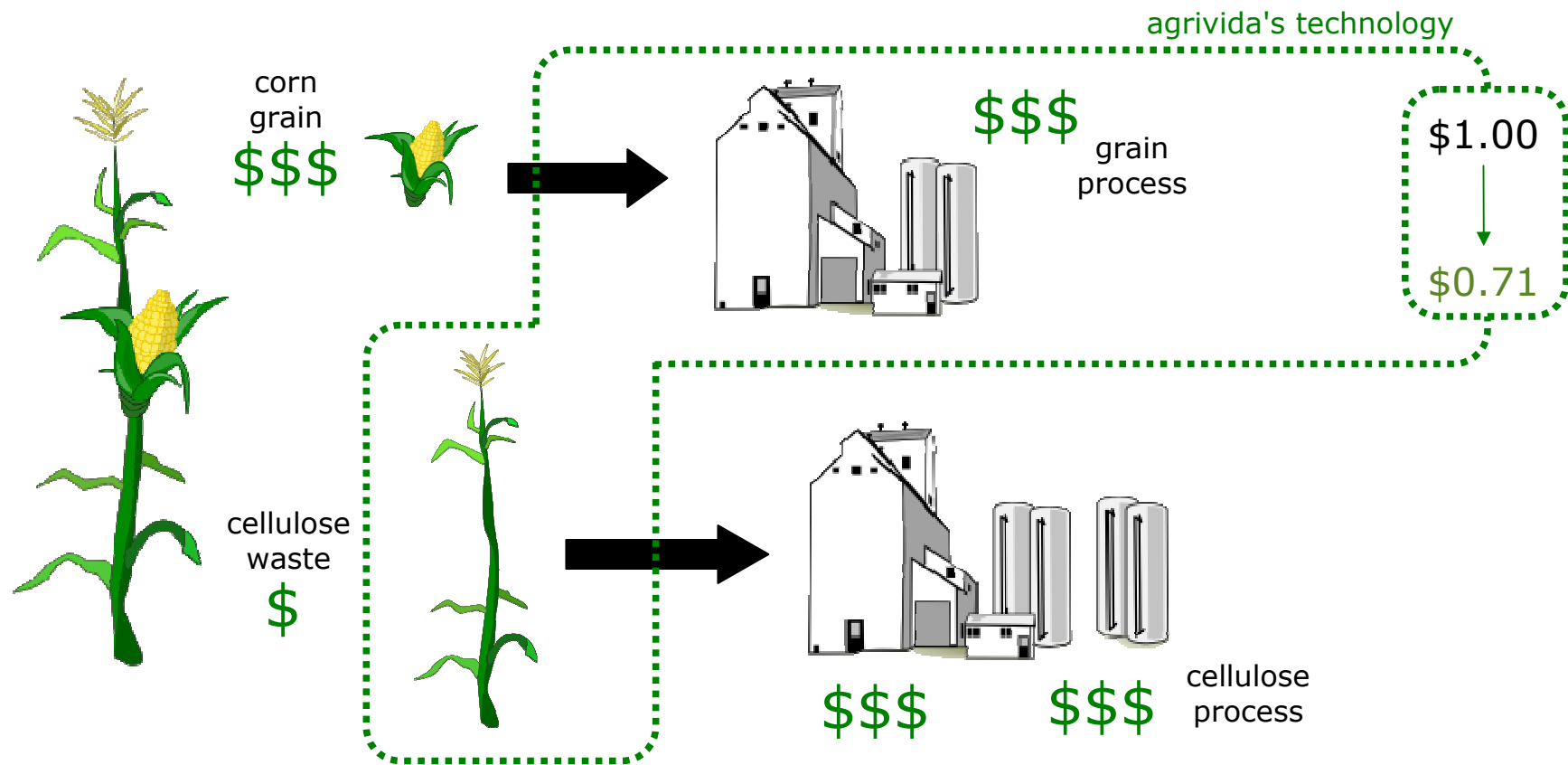
## Ethanol summary:

- U.S. Ethanol is
- \$10B market in 2006,
  - renewable,
  - clean-burning, and
  - domestically produced

## Market challenges:

- Reduce ethanol production costs and expand capacity
- Develop cost-competitive cellulosic processes
  - Use agricultural residues and non-food feedstocks
  - Expand feedstock acreage to be grown in diverse geographies and on marginal soil

# Competitive Advantage

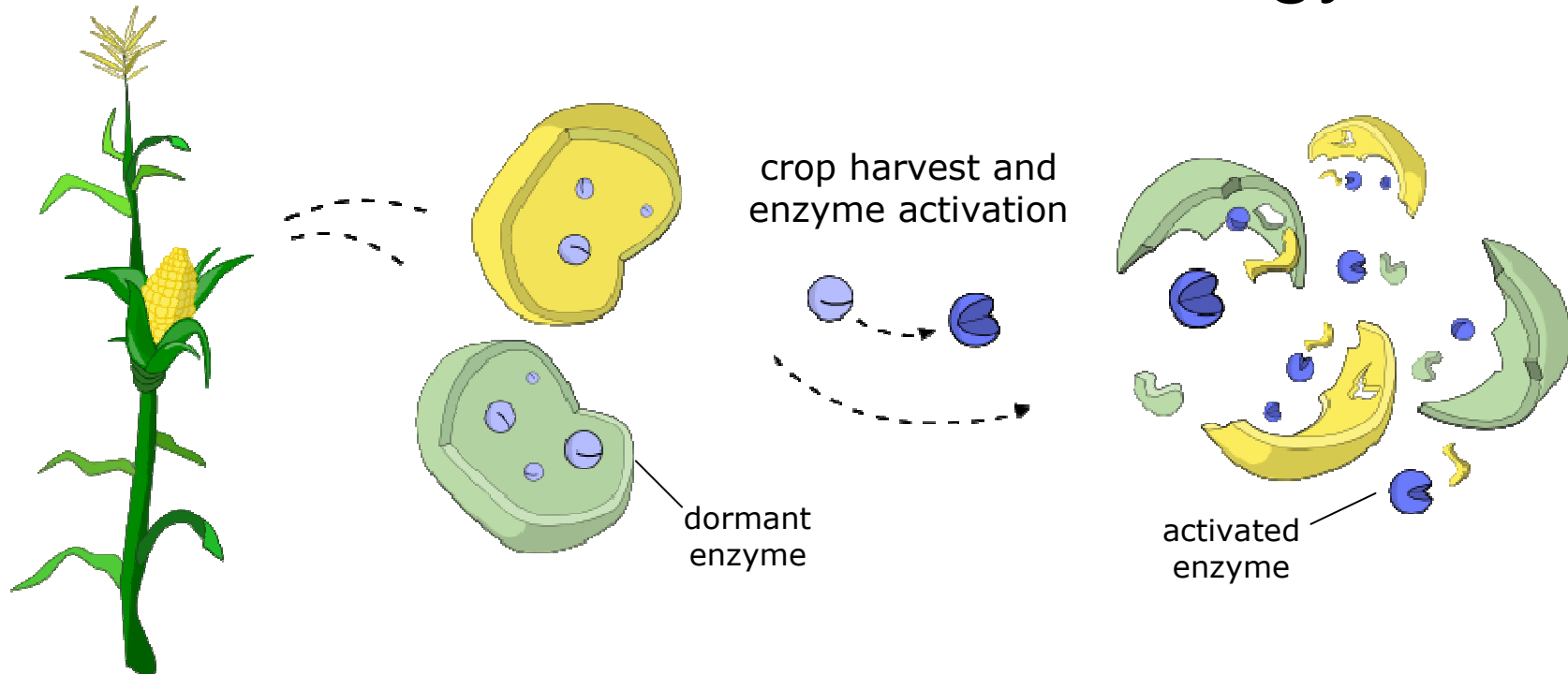


Agrivida can add over \$1.5B/yr to the ethanol value-chain:

**Farmers:** 15% profit increase from selling waste

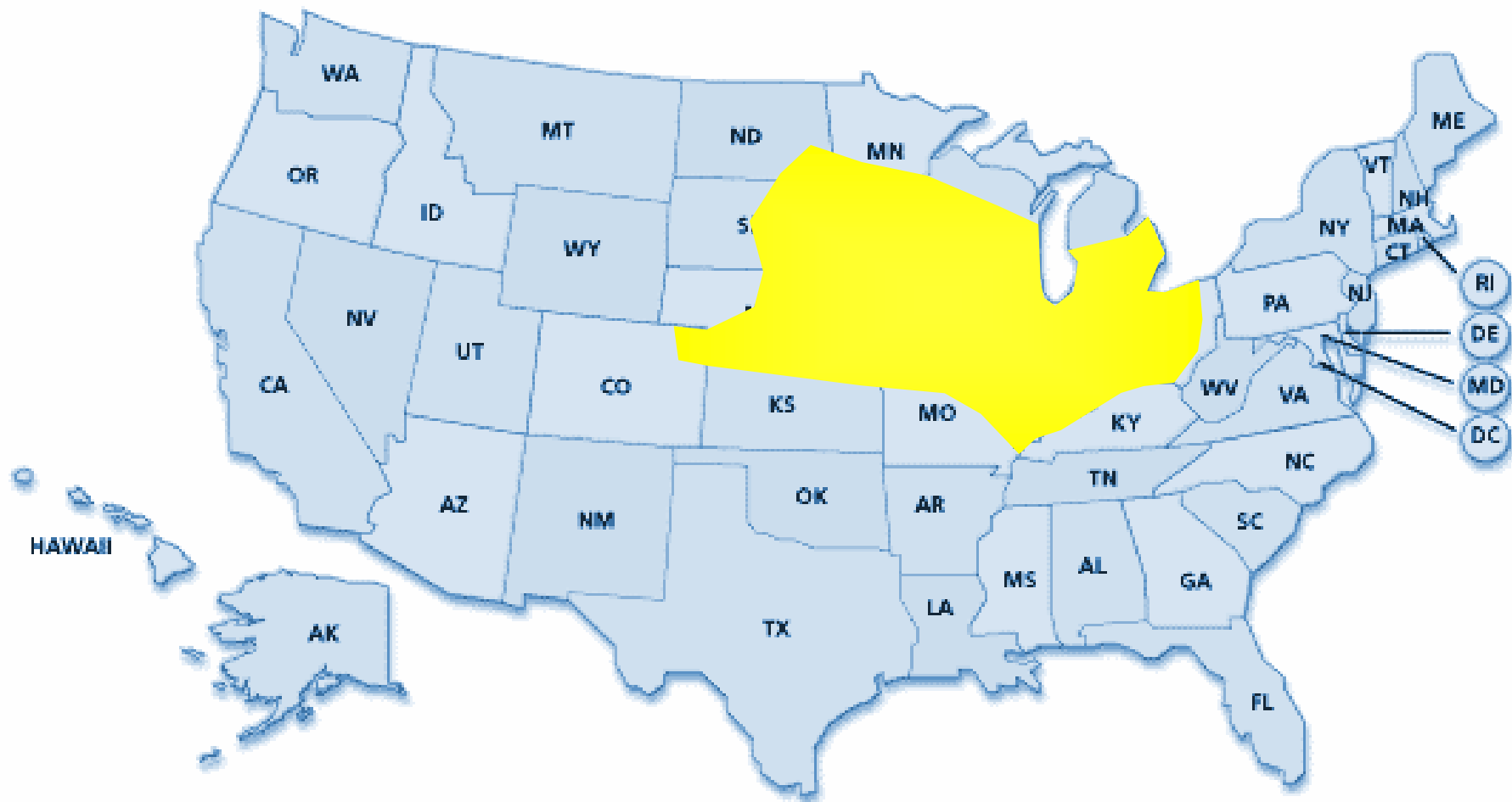
**Producers:** 29% OPEX & 26% CAPEX savings

# GreenGenes™ Technology



1. GreenGenes™ crops produce dormant enzymes within the plant.
2. The dormant enzymes are activated after harvest.
3. The activated enzymes degrade the cell wall.

# Agrivida Technology

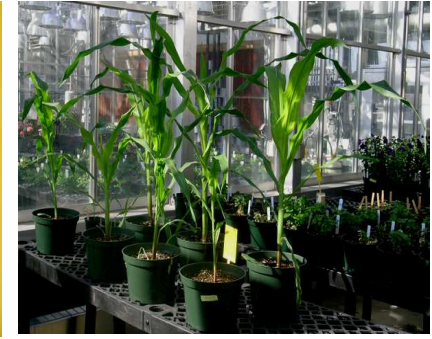




# Agrivida Technology

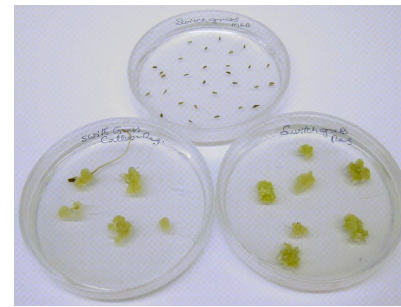
## Improved Transformation Methods:

Increases transformation capacity. Reduces regeneration time by four months.



## Novel culture techniques:

Potential applications in corn breeding and trait development.



## Stress Tolerance:

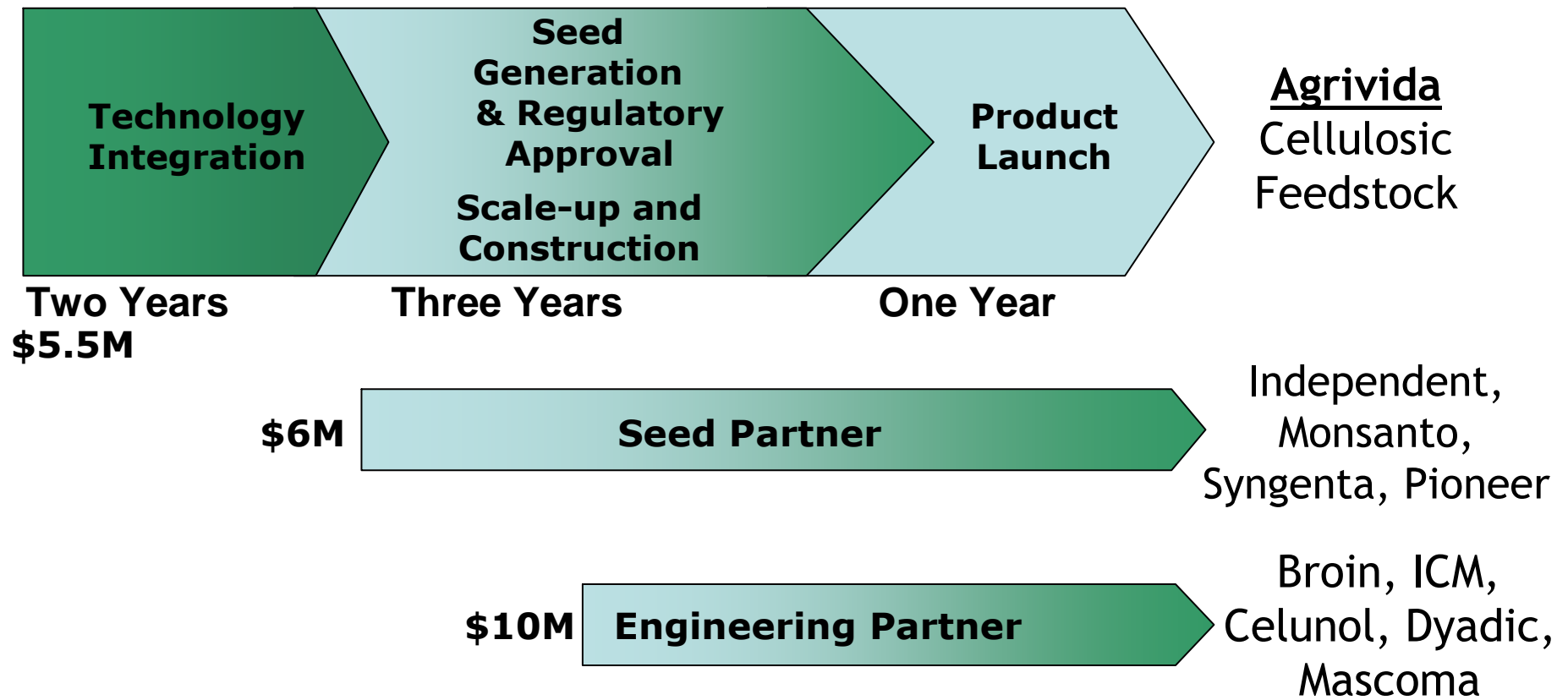
Improved drought, cold, salinity tolerance.



(After 2 hr at -6 C)



# Commercialization Strategy

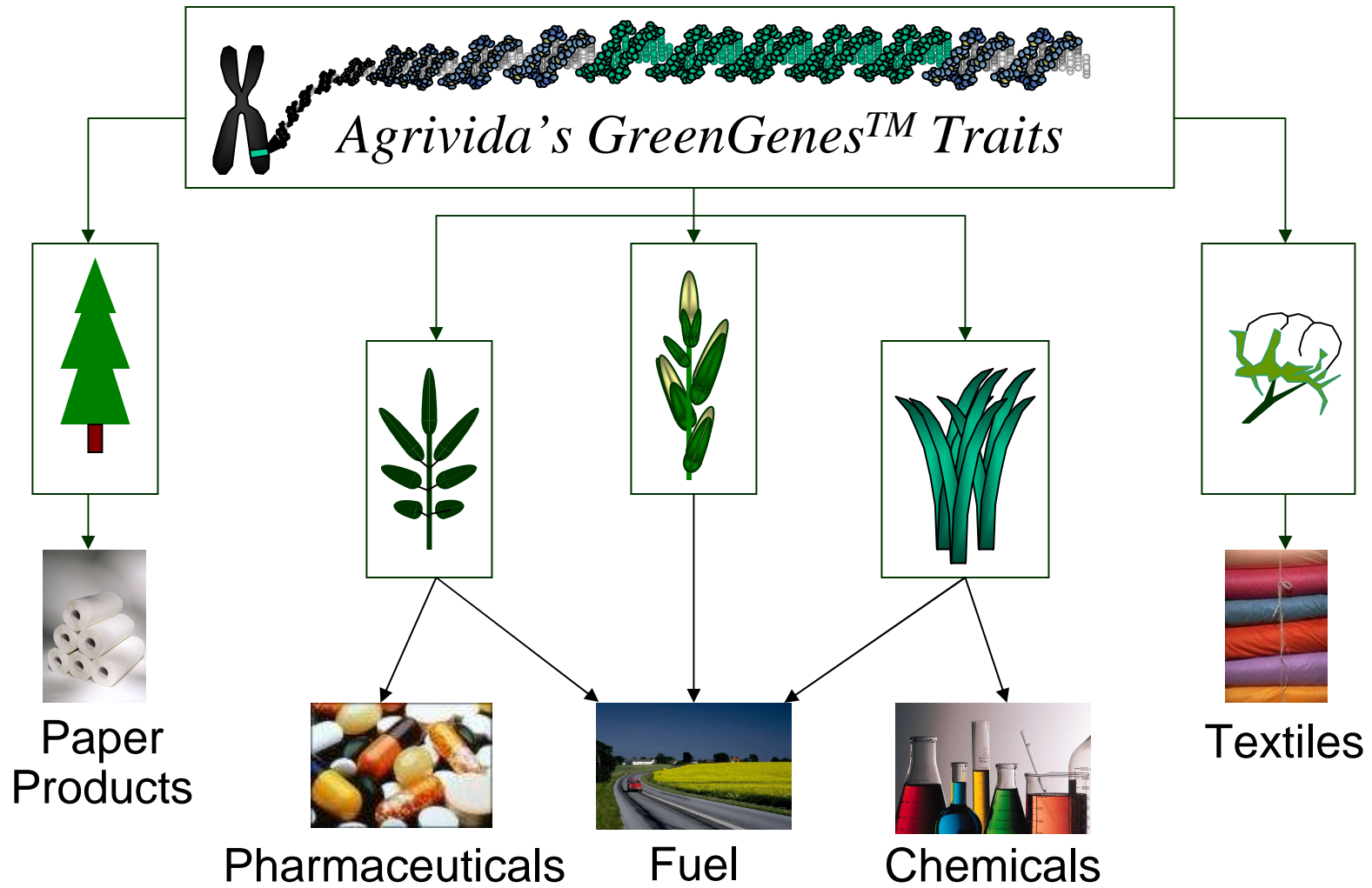


Funding Sources: Venture Capital, Strategic Partners

*Government Funding*: NSF, DOE, USDA, State Agencies

*Intermediate Revenues*: Out-licensing

# Future Markets





# Agrivida

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